

Appl. No. : **10/616,411**
Filed : **July 8, 2003**

AMENDMENTS TO THE DRAWINGS

New drawings are submitted with this amendment. No changes have been made, no new matter has been added.

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REMARKS

With this response, Claim 1 has been amended and new Claim 21 has been added. Claims 1-21 are pending.

Drawing Objections

Formal drawings are attached to this amendment. No new matter has been added.

Claim Rejections

The Examiner has rejected Claims 1, 2, 5, 11, 16, and 17 as anticipated by Hitz. The snapshot system of Hitz, however, does not disclose "identifying and replacing" ancestor nodes of a node being modified. In Hitz, 4KB blocks of data are identified and replaced, not inodes themselves. The portions of Hitz referred to by the Examiner in the Office Action discuss the process of determining which 4KB blocks are allocated to the current file system and to one or more snapshots. To do this, Hitz associates a series of bits with each block, with different bits determining which snapshots a given data block is part of, as well as a bit determining if the block is currently in use by the active file system. As noted at column 9, lines 30-40 of this patent, the nodes are themselves stored in one or more of these blocks, with up to 32 nodes allocated to a 4 KB block. The Hitz system thus does not identify ancestor nodes or replace them as logical units as claimed. Hitz can only replace 32 nodes at a time, as it can only replace 4 KB blocks at a time, regardless of which of those nodes actually need replacing. The system of Hitz therefore uses more space than necessary when creating snapshots.

Claims 2, 5, 11, 16, and 17 depend from Claim 1, and it is respectfully submitted that these claims are not anticipated by Hitz for at least the same reasons.

Claims 3, 4, 6-10, 12, 13, and 18-20 have been rejected over Hitz in view of either Eschel or Sekido. Each of these claims is also dependent on Claim 1 discussed above. The applicant respectfully submits that none of these references, alone or in combination, teaches or suggests the node manipulation defined in Claim 1.

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New Claim

New Claim 21 is directed to the embodiment described in paragraph 0018 of the application as filed. The limitations of this claim have some similarity to those found in dependent Claim 4, which was rejected by the Examiner over Hitz in view of Eschel.

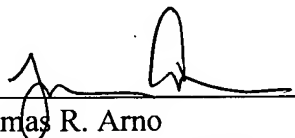
In rejecting original Claim 4, the Examiner cited column 22 of Hitz at lines 11-14, 37-39, and 62-67 for a teaching of associating an indication with a node that it is not to be a part of a snapshot. However, these sections of Hitz do not describe any indication that a current file system node is not to be part of a snapshot. Hitz does state in column 22 that nodes that cease to be part of the active file system will not be part of any subsequent snapshot, but this is merely the definition of a snapshot. No reference of record teaches or suggests associating an indication with an active file system node that the node is to be isolated from a subsequent snapshot. It is therefore respectfully submitted that new Claim 21 is in condition for allowance.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: 7/10/06

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